



CLAIMS

- 1) A reciprocating blade system for a knife, allowing high cutting efficiency to be achieved without dragging on the object to be cut, characterised by a blade with curved or arc-shaped cutting edge, able to oscillate or swing in relation to the support to which it is attached by any means which allows it to move in this way,
- 5 so that the cutting edge is able to execute a to-and-fro movement on the object to be cut when the handle is moved from front to rear as for any knife, thus approaching the design of conventional blades and differing from blades which are circular or which vary in circumference and of different shapes rotating about an pin, while still having the advantages of the latter and avoiding their drawbacks.
- 10 2) A reciprocating blade system for a knife according to the claim 1, characterised in that the blade (1) with curved or arc-shaped cutting edge (5), is attached to a support (3) extended by a handle (4), amongst other possible means of attachment, by an pin (2) which allows it to oscillate or swing in relation to this support, so that this cutting edge executes a to-and-fro rolling motion along arrows (7) and (7bis)
- 15 on the object to be cut, when the handle is moved from front to rear as when cutting with any other knife
- 3) A knife according to either of the previous claims, characterised in that the blade (1), includes a stop (6), which arrests its to-and-fro movement at the limit of each direction when this stop comes up against parts (3bis) and (3ter) of the rod (3) so that the cutting edge (5) still remains in contact with the object to be cut, and prevents the blade (1) from over-rotating either partially or completely.
- 20 4) A knife according to any of the previous claims characterised in that the length of cut is increased when moving the handle to the rear by slightly displacing the pin (2) to the left of the arc formed by the blade, and vice versa.
- 25 5) A knife according to the claims 1, 2, characterised in that, amongst other possible means of attachment, the blade (1) is attached to the support rod (3) by a swivel (2bis) which also allows it to oscillate along arrows (7) and (7bis). This swivel can be an integral part of the support rod (3), and act as a hinge in the blade (1), or can form an integral part of the blade (1) and act as a hinge in the support rod (3).
- 30 6) A knife according to the claims 1, 2, characterised in that, amongst other possible means of attachment, the blade (1) is attached to the support rod (3) by a spring (2ter) which also allows it to oscillate along arrows (7) and (7bis). This spring (2ter) can be located in the extension of the support rod (3) or on the side of this support rod. Other arrangements of this spring are also possible.